Original Lectures.

LECTURES ON NEW REMEDIES AND THEIR THERAPEUTICAL APPLICATIONS.

DELIVERED AT THE
NEW YORK MEDICAL COLLEGE AND CHARITY HOSPITAL.

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LECTURE V. PART I.

THE ACTIVE PRINCIPLE OF COLCHICUM—COLCHICINA.

GENTLEMEN:—Colchicum has been examined by several chemists, but it is not yet clearly determined whether its active principle is an alkaloid or neutral substance. Those who first investigated its properties called it colchicia, or colchiciene, and Oberlin gives the name colchiceine. Pereira has adopted the name I have chosen, and I think it the best and most euphonious of them all.

History.—Pellatier and Caventou first demonstrated in 1820, that an active principle existed in the plant, but they supposed it to be identical with veratria; but to Geiger and Hesse, in 1833, is due the credit of first isolating the principle, in an impure state, and using it in physiological investigations. L. Oberlin (in *Comptes Rendus*, Dec., 1856) states that he has repeated the process of Geiger and Hesse, but was unable to obtain a crystallizable product. I have repeated the experiments of these gentlemen, but have obtained better results by adopting a process differing from either. Mr. J. E. Carter (*Am. Jour. Pharm.*, May, 1858) has adopted a still different plan, and whereas all who preceded him used the seeds, he used the cormus in making his investigations. The product which he obtained appears to be an alkaloid principle, and he gives numerous tests and reagents for its detection, but as I did not see his thesis until after my investigations had been made, and as I have never obtained any of the alkaloid of which he treats, I am unwillingly compelled to leave his principle for discussion at some future time.

Method of Preparation.—The process employed by Geiger and Hesse is as follows:—The seeds are macerated in alcohol, and the tincture obtained evaporated by a gentle heat, and during the process repeatedly decolorized; when sufficiently concentrated by evaporation, an excess of carbonate of soda is added, and the precipitate produced is separated as speedily as possible from the alkaline carbonate by expressing and treating with absolute alcohol. The alcoholic solution is filtered, decolorized, evaporated, and the colchicina allowed to deposit.

By this process L. Oberlin could not succeed in obtaining a crystallizable product. I have found by repeated experiments that this process of Geiger and Hesse produces a compound substance, which is uncrystallizable, and which consists of a resinoid substance in combination with the so-called alkaloid, or rather neutral principle. Oberlin obtained the substance which he calls *colchiceine*, in contradistinction from the product called colchicin by Geiger, by treating their uncrystallizable product with water acidified with sulphuric or hydrochloric acids, and evaporating to a syrupy consistence; it is then thrown into water, and a yellowish white precipitate takes place; this is soluble in alcohol or ether, and crystallizes readily. He obtained the same product directly from the seeds, by dissolving the alcoholic extract in alcohol and decolorizing. The syrupy extract which remained after evaporation when dissolved in water, and slightly acidulated with sulphuric acid, gave rise to a flocculent precipitate. The liquid, when filtered and left for some weeks, produced warty acicular crystals.

I have repeated this process, but the result is so small, and so great a length of time is required, that I was led to adopt a different process. It will be observed that this process of Oberlin divides the product of Geiger into two substances, a resinoid and a neutral.

The process that I had adopted for obtaining this principle is as follows. The seeds of the meadow saffron are ground in a coffee-mill, and mixed with about one-third their bulk of animal charcoal, the whole moistened with dilute alcohol, and placed in a percolator. The mass is allowed to stand in the percolator saturated with dilute alcohol for several days; percolation is then allowed to proceed, and dilute alcohol is added until it passes through nearly tasteless. This is concentrated by evaporation to about one-half, and then filtered. Magnesia is now added, and the whole precipitate collected on a filter and dried. The mass is then boiled in alcohol and filtered, treated with carbonate of soda until a precipitate no longer forms, but carefully avoiding an excess of the soda, and filtered at once. This gives a fawn-colored powder, which may, if required, be crystallized from very dilute sulphuric or hydrochloric acids. The amorphous precipitate should be rendered still lighter in color by repeated solutions in alcohol and precipitations by soda; but it is accompanied by great loss, as it is quite soluble.

Physical and Chemical Properties.—The product obtained by me, and which I have placed under the heading of Colchicina, is identical with the *colchiceine* of Oberlin, but as I shall have by and by to treat of the physiological effects of the product obtained by Geiger, it will be better to speak of all under the one heading. It is not properly a salt, or if so is a very feeble one, and in its chemical properties should more properly be considered a neutral principle. It is very slightly soluble in cold water, to which it communicates a bitterness. It is more soluble in boiling water, which is rendered very bitter, but a precipitate takes place as the water cools. It is soluble in alcohol, ether, chloroform, and wood spirits, in all of which its taste is intensely bitter. It crystallizes in iridescent, pearly lamellæ. It is soluble in ammonia, caustic potash, and soda. It is not deliquescent in the air, and whether in the state of amorphous precipitate, or lamellæ, it remains unaltered. Oberlin found that the alcoholic solution was colored by the addition of bichloride of platinum, but that no precipitate was formed. Pure nitric acid dissolves it, and it acquires a very intense yellow color, which passes to violet, then deep red, and bright red, and returns to its original yellow color. He found also that concentrated sulphuric acid dissolved it, forming a solution of very intense yellow color, which it retained even after dilution with water. Hydrochloric acid dissolves it also with a bright yellow color. Acetic acid dissolves it, without alteration of color. He found also that it acquired a green color with perchloride of iron; but presented no change of color or turbidity with solutions of acetate of lead, nitrate of silver, perchloride of mercury, or infusion of galls.

Oberlin found its composition to be C 62·83, H 6·60, N 4·19, O 26·38. Pellatier considered this substance to be identical with veratria; but, independent of the many chemical tests, it may be distinguished from that alkaloid by the following properties:—A very small quantity of veratria causes intense sneezing, whereas colchicina produces no such effect. Colchicina is slightly soluble in water, to which it communicates a bitterness; it crystallizes also in pearly lamellæ; veratria has neither of these properties.

Physiological Action of Colchicina.—It is a very bitter and poisonous substance, even in very small doses inducing vomiting and purging. Geiger, who experimented with it on animals, found it to act as a violent drastic purge, causing convulsions and death from gastro-enteritis. One-tenth of a grain dissolved in weak spirits killed a young cat in about twelve hours: the symptoms were salivation, vomiting, diarrhœa, a staggering gait, cries, convulsions, and death; the stomach and intestines were violently inflamed, and had extravasated blood throughout the whole course.

Albers has also experimented with it on animals. He applied half a grain of the colchicin of Geiger under the skin of the thigh of a frog. After fifteen minutes the

breathing became laborious; after thirty-three minutes paralysis of the leg supervened, which in the course of an hour extended over the whole body, so that neither the skin nor the limb reacted on applying irritants; respiration ceased, but the heart continued to pulsate for nine hours longer. Repeated experiments gave similar results, and Albers concludes that:—1st, Colchicin acts specially upon the skin, considerably diminishing, and even entirely destroying its sensibility. 2d, Muscular activity is completely paralysed without preceding convulsions or spasmodic action. 3d, The heart does not share the paralysis of the voluntary muscles. 4th, The effects of colchicin appear only after a comparatively long time: the delayed effects of preparations of colchicum in diseases is hence explained.

Hoppe arrives, from his experiments on frogs, at the conclusion that colchicin first stimulates the activity of the heart, and that its after effects render it considerably weaker. That it first produces contraction of the bloodvessels, afterwards dilatation, and he thinks colchicin a special stimulant acting impulsively on the nerves of the vessels.

Aschoff observed the following effects from colchicin:—A pigeon, after one-quarter of a grain was administered, lost appetite, became drooping, had three evacuations, and died greatly emaciated on the ninth day Half a grain was given to a rabbit two months old: after six minutes it showed great uneasiness, quickened and laborious respiration, paralysis, spasms, and death in seven hours. A grown rabbit died after sixteen hours, from two grains; while another recovered in three days from the same dose, after suffering threatening symptoms. One grain applied into a cut in the leg of a dog three months old, produced restlessness, whining, mucous stools, diarrhœa, and death in sixteen hours. Two grains dissolved in half a drachm of alcohol were applied with friction to the region of the kidney of a dog two years old: disinclination to take food, pultaceous excrements, contraction of the abdomen, vomiting, restlessness, diarrhœa, towards the last mixed with blood, and death in five hours. A lamb ten days old died after six hours, with phenomena similar to those observed in the cases of dogs and rabbits. A cat died in twenty-six hours from one grain. In one case of a dog six months old poisoned by one grain, fifteen grains of tannic acid were of no antidotal effect. The animal died seven hours after taking the colchicin. In a case of poisoning of a cat by one grain and a half, chemical analysis proved colchicin to exist in the stomach, small intestines, heart, lungs, liver, kidneys, and blood. According to Aschoff's investigations colchicin is an acrid, narcotic poison, producing inflammation of the stomach and intestines, as proved on dissection, and causing death on reaching the circulation.

Gustavus Bley administered one-eighth grain of colchicin to a cat three months old; anxiety, restlessness, vomiting, and diarrhœic discharges followed, with spasms and death in six hours. Dissection showed inflammation of the œsophagus and stomach, and the heart was filled with black blood. To a grown rabbit were given two grains of colchicin in three divided doses; it passed considerable urine, lost all inclination for food, had very liquid discharges, vomited with much retching, and died in about seven hours. Dissection showed great congestion of the liver and kidneys, inflammation of the œsophagus and intestinal mucous membrane, black blood in the heart, yellowish liquid mucus in the stomach, and thin bloody excrement in the rectum. Three-quarters of a grain were administered to another grown rabbit, and two hours after fifteen grains of tannic acid in water; it was very restless, refused to take food, passed urine, and very thin alvine discharges. Soon after another dose of fifteen grains of tannic acid was given, and after six hours it again took food, and seemed after a few days to be recovered, but remained afraid of everybody. One grain introduced with a little water into the cellular tissue of a rabbit, killed it in an hour and a half. Dissection showed the intestines to be inflamed, liver and kidneys congested, dark blood in the heart, but the stomach and œsophagus healthy. Bley, like Aschoff, demonstrated the existence of colchicin in the organism after death, and thinks that tannin may be tried as an antidote against its powerful poisonous effects.

Schroff made physiological experiments with colchicin on men as well as on animals. In one case one centigramme was taken, and the following symptoms observed. Taste very unpleasantly bitter, followed by disagreeable eructations, nausea with strong inclination to vomit, and increased secretion of saliva; these symptoms continued for several hours: the frequency of the pulse was reduced during the first two hours by eleven beats. In the second experiment, on the same person eight days later, two centigrammes were administered in a wafer, thus avoiding the unpleasant taste. The same symptoms appeared during the first four hours as those previously noticed. Afterwards there was increased nausea, great anxiety, unpleasant sensations; sleep was troubled and restless; about midnight repeated diarrhœa, and vomiting took place, which from time to time continued the next morning. Nausea, entire want of appetite, unpleasant sensations, and great tenderness in the abdomen, continued for four days. The stools were yellowish green, mucoid, and there was much tenesmus. A feverish condition was induced with chills, and succeeding heat, thirst, quickened pulse, headache, restlessness, and sleeplessness. The urine was like whey, with abundant white sediment. Not until the fifth day did these abnormal symptoms pass off.

Rabbits died in from nine to fourteen hours, irrespective of the dose. One decigramme (about a grain and a half) was the smallest dose, it killed within fourteen hours; and one gramme (about fifteen and a half grains) was the maximum dose administered, which killed in eleven hours. In general very violent purging followed a few hours after administration, and the animals died gradually exhausted, somewhat like death from aconite. In exceptional cases—most frequently when no diarrhœa had taken place—convulsions immediately preceded death, otherwise, however much and in whatever way Schroff irritated the animals, and acted on their organs of sense, no reflex spasms appeared. Most constantly enteritis was found, sometimes gastritis, and always thick, pitchy black blood filled the cavities of the left heart, and the ascending and descending aorta to the branches belonging to the brain, liver, and kidneys. Comparing the effects of colchicin with those of veratria, Schroff refers to the fact, that the former does not excite sneezing when applied to the nose, violent burning and pricking pain when applied to the skin, great irritation of the mucous membrane of the mouth, and intense salivation, all of which veratria does. Colchicin, it is true, induces vomiting, but only after considerable time, while veratria does so quickly. Colchicin almost constantly causes gastro-enteritis, which veratria does not. But the most essential difference consists in the absence of any special relation of colchicin to the spinal marrow; reflex spasms never appear, which do take place in so marked a manner after the administration of veratria. A striking difference between colchicin and all narcotics is the fact, that the increase of the dose of the poison has comparatively almost no influence on the hastening of death. Colchicin possesses, therefore, only the properties of an acrid poison, without any special action on the brain or spinal marrow. *(To be Continued.)*

M. Prévault of Tours speaks thus of his personal experience of the antiphlogistic *method*:—"When eighteen years old, and a student at Paris, I was seized with an attack of acute rheumatism, and carried to La Charité, to M. Bouillaud's wards. Seven bleedings from the arm in four days, eighteen cuppings at the knees, *diète absolue* for a week, mercurial frictions, blisters, were the treatment. However, the fever did not cease before the eighteenth day. At the end of a month, I left the hospital, and managed to reach my lodgings, which I could not leave again for a month; and I was a year before I was free from pain and stiffness in the joints."—*Brit. Med. Jour.*

Original Communications.

A SINGULAR CASE OF HEMIOPIA,

WITH REMARKS.

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Two years ago last July Miss T——, æt. 16, attending a boarding-school, was instantaneously attacked with hemiopia while reading an essay before the school. Her face was observed to flush very much while reading, and the accident was at once discovered. I was requested to see her not long afterwards, and found her laboring under partial blindness of the right eye, obscuring one half the field of vision. Closing the left eye and looking directly forward, she could see just one half of any object, if presented immediately before the eye, viz. *the upper; the lower half being totally invisible.* The treatment, which was generally alterative, locally depletant, and revulsive, and continued for several weeks, produced no change whatever, and the vision is now as imperfect as the day the accident happened.

I believe that temporary hemiopia, affecting the right or left half of all objects, is not very unusual, as I have myself been thus affected at times, and known many others also similarly attacked. Sometimes it has been confined to one eye, but quite as often attacks both. But in all these cases the affection has been but temporary, passing off in the course of a few minutes, or hours, at furthest. The celebrated Dr. Wollaston was repeatedly attacked with hemiopia, as related by himself, in the Philosophical Transactions for 1824 (part i. p. 229),* and he made the disease the basis of a theory regarding the "*Semi-decussation of the Optic Nerves*," published in the same paper. As his case is an extremely interesting one, especially in connexion with the morbid appearances of his brain, as disclosed at the autopsy (*Lond. Med. Gazette*, vol. iii. p. 293: Lond. 1829), no apology will be needed for quoting it at length, as well as two other cases which he has related:—

"It is now more than twenty years," says he, "since I was first attacked with the peculiar state of vision to which I allude, in consequence of violent exercise I had taken for two or three hours before. I suddenly found that I could see but half the face of a man whom I met; and it was the same with respect to every object I looked at. In attempting to read the name JOHNSON over the door, I saw only SON; the commencement of the name being wholly obliterated to my view. In this instance the loss of sight was towards my left, and was the same whether I looked with the right eye or the left. This blindness was not so complete as to amount to absolute blackness, but was a shaded darkness without definite outline. The complaint was of short duration, and in about a quarter of an hour might be said to be wholly gone, having receded with a gradual motion from the centre of vision obliquely upwards towards the left. Since this defect arose from over-fatigue, a cause common to many other affections, I saw no reason to apprehend any return of it, and it passed away without any need of remedy, without any further explanation, and without my drawing any useful inference from it. It is now about fifteen months since a similar affection occurred again to myself, without my being able to assign any cause whatever, or to connect it with any previous or subsequent indisposition. The blindness was first observed, as before, in looking at the face of a person I met, whose *left eye* was to my sight obliterated. My blindness was in this instance the reverse of the former, being to *my right*, instead of the left, of the spot to which my eyes were directed; so that I have no reason to suppose it in any manner connected with the former affection. The new *punctum cœcum* was situated alike in both eyes, and at an angle of about three degrees from the centre; for when any object was viewed at the distance of about five yards, the point not seen was about ten inches distant from the point actually looked at. On this occasion the affection, after having lasted with little alteration for about twenty minutes, was removed suddenly and entirely by the excitement of agreeable news respecting the safe arrival of a friend from a very hazardous enterprise."

We are not informed whether Dr. W. ever had any subsequent attacks of hemiopia, but he died about four years after this account was written, and it is stated that the *right optic thalamus* was of an unusually large size, and that on making a section of it, with the exception of a layer of medullary substance on its upper part, little or no vestige of its natural substance was perceptible. It had been converted into a tumor as large as a middle-sized hen's egg, of a greyish color towards the circumference, and harder than the brain itself, somewhat of a carious consistence, but in the centre of a brown color, soft, and in a half-dissolved state. This diseased structure was not confined to the thalamus, but extended to the neighboring portion of the corpus striatum. The right optic nerve, where it passes on the outside of the thalamus, was of a brown color, more expanded, and softer than natural. (See *Loc. Cit.*, p. 293) Whether any connexion existed between this pathological condition of the brain and the previous affection of the sight, cannot be determined with any certainty, although it is certain that "morbid alterations in the substance of the brain sometimes produce periodic diseases; and that certain additional causes of excitement operating upon an unsound brain will cause one or other of the functions of that organ to be for a time impeded, till the new cause ceases to operate, when the individual immediately returns to his former state of apparent health."

Dr. Wollaston has related, in connexion with his own case, two other instances of the affection in persons of his acquaintance, which are perhaps worth quoting. In one, a gentleman, after suffering severe pain in his head for some days, about the left temple, and towards the back of the left eye, his vision became considerably impaired, attended with other symptoms, indicating a slight compression on the brain. Dr. W. saw him at the end of three or four weeks, and found him laboring under hemiopia, which became permanent. In this case the blindness was in reference to objects situated to the right of the centre of view. "Fortunately," says Dr. W., "the field of his vision is sufficient for writing perfectly. He sees what he writes, and the pen with which he writes, but not the hand that moves the pen. This affection is the same in both eyes, and consists in an insensibility of the retina on the left side of each eye. *It seems most probable that some effusion took place at the time of the original pain on that side of the head*, and has left a permanent compression on the left thalamus.* This partial blindness has now lasted so long without sensible amendment as to make it very doubtful when my friend may recover the complete perception of objects on that side of him."

In another case, related by Dr. W., a person had been habitually subject to the affection for sixteen or seventeen years, *whenever his stomach was in any considerable degree deranged.* Here the blindness was invariably to the *right* of the centre of vision, affecting both eyes alike, and lasting about a quarter of an hour after eating, when laboring under indigestion, and then subsiding without leaving any permanent imperfection of sight. The pathology of this affection, as suggested by Wollaston, is highly rational and ingenious, if not wholly sound in detail. He assumes that, as the corresponding points of the two eyes sympathize in disease, their sympathy must arise from structure, and not from a "mere habit of feeling together;" that two corresponding points must be supplied with a pair of filaments from the same nerve, and the seat of a disease in which similar parts of both eyes are affected must be

* Dr. Wollaston was under the impression that the optic nerves took their rise from the *thalami nervorum opticorum*; whereas it is now well known that they have their origin in the *corpora quadrigemina*, the optic lobes, tubercles, or ganglia.

considered as situated at a distance from the eyes, at some place in the course of the nerves where these filaments are still united. Hence, he inferred that the cord, which is called *optic nerve*, must be regarded as consisting of two portions, one of which comes from the right, and the other from the left thalamus: decussation thus taking place only between the adjacent halves of the two nerves: that portion proceeding from the right thalamus to the right side of the right eye, passing to its destination without interference; and in a similar manner the left thalamus supplying the left side of the left eye with one part of its fibres, while the remaining halves of both nerves, in passing over to the eyes of the opposite sides, intersect each other, either with or without intermixture of their fibres. It follows that an injury to the *left* thalamus would occasion blindness to all objects situated to our *right*, owing to insensibility of the left half of the retina of both eyes, and *vice versâ*. But how is it, when, as in the case I have given, the *upper* or *lower half* of the field of vision is obscured, causing horizontal hemiopia? Is there any evidence that the two portions, of which each optic nerve may be regarded as consisting, remain distinct after they form the retina?. Do not pathological facts, and anatomical and physiological experiments, show that diseases and injuries affecting one side of the brain produce amaurosis only in the opposite eye, instead of hemiopia in both eyes? Mackenzie has called attention to the fact that, as the optic nerves pass through the sclerotica and choroid, considerably nearer the middle line of the body than the centre of the globe of each eye, the two optic axes, which, if any two points deserve to be considered as such, are surely corresponding points, will not be formed by filaments from the same nerve, but from opposite nerves; and he thinks it more probable that the two portions, of which each optic nerve consists, mingle in the fibres, and then expand into the retina, so that the membrane in each eye should be regarded as a plexus, every point of which contains fibres derived from each side of the brain.

The best and most recent anatomical authorities represent the optic nerves as decussating with each other in such a manner as to form a connexion between the two opposite sides, as well as between each tubercle and retina of the same side. This is beautifully illustrated by a plate in Dalton's Physiology, where from each optic tubercle three different bundles or tracts of nervous fibres are seen given off; one set passing across transversely at the point of decussation, and turning backwards, terminates in the tubercle of the opposite side; another set, crossing diagonally, continues onward to the opposite eyeball; while a third passes directly forward to the eyeball of the same side; a fourth set of fibres, still, passes across, in point of the decussation, from the retina of one side to that of the opposite side. By this arrangement, then, we have the two retinæ, as well as the two optic tubercles, connected with each other by commissural fibres; while each tubercle is, at the same time, connected both with its own retina and with that of the opposite side. It is doubtless owing to these connexions, and this arrangement, that when, in the human subject, the eyes are directed in their proper axes, the two retinæ, as well as the two optic tubercles, act as a single organ, and that vision is single, though there are images upon the retinæ: double vision only occurring when the eyeballs are turned out of their proper direction, so that the parallelism of their axes is lost, and the image no longer falls on corresponding parts of the two retinæ; or in other words, the fibres which proceed from the optic ganglia to the retinæ, constituting the proper optic nerves, being composed of an external and an internal tract—the *external* on each side pass directly onwards to the eye of that *side*, whilst the *internal* crosses over to the eye of the *opposite* side; the distribution of the two sets of fibres in the retina of each eye respectively being such, that the fibres from either optic ganglion will be distributed to its own *side of both eyes*—the right optic ganglion being thus exclusively connected with the outer part of the retina of the right eye, and with the inner part of the retina of the left eye, and the left optic ganglion being, in like manner, connected exclusively with the outer side of the left retina, and with the inner side of the right. Of course, as either side of the eye receives the images of objects which are on the other side of its axis, it follows that in the human subject, as well as some of the lower animals, each ganglion receives the sensations of objects situated on the opposite sides of the body. It has been suggested that the purpose of this decussation may be, to bring the visual impressions, which are so important in directing the movements of the body, into proper harmony with the motor apparatus; so that, the decussation of the motor fibres in the pyramids being accompanied by a decussation of the optic nerves, the same effect is produced as if neither decussated, as is the case with invertebrated animals in general.* In fishes, for example, as is well known, the optic nerves cross each other at the base of the brain, without any intermixture of their fibres; that from the right optic tubercle passing to the left eye, and that from the left optic tubercle passing to the right eye; the two nervous cords being totally distinct from each other throughout their entire length, being only connected at the point of crossing, by intervening areolar tissue. Of course, impressions made on the right eye must be perceived on the left side of the brain, while those which enter the left eye are conveyed to the right side of the brain. In birds, also, although the optic nerves are here united, and apparently soldered together at their point of crossing, yet the decussation of their fibres is nevertheless complete; the nervous filaments coming from the left side passing altogether over to the right, and those coming from the right side passing over to the left. Accordingly, if one of the optic tubercles be destroyed in a bird, complete blindness is at once produced in the eye of the opposite side; but vision remains unimpaired in the eye of the same side with the injury. The true explanation of the phenomena of hemiopia must, then, be found in the anatomical arrangement of the fibres entering into the structure of the optic nerves. Mackenzie very truly states, that if a tumor or excrescence were to press on the optic nerves immediately anteriorly to their union, the effect would be, according to the hypothesis of semi-decussation, to paralyse the inner half only of each retina. If, however, pressure were made on that portion of either optic tubercle whence those fibres originate which pass across transversely at the point of decussation, and turning backwards terminate in the tubercle of the opposite side; or if the effusion be located at that point whence the fibres originate, which, crossing diagonally, pass onward to the opposite eyeball; or at that part whence the fibres proceed directly forward to the eyeball of the same side, without any decussation whatever; or, as in the case already supposed, where pressure is made on those fibres which pass directly across in front of the decussation, from the retina of one eye to that of the opposite side, causing in this case paralysis of the inner half only of each retina; in each of the above pathological conditions supposed the phenomena will be varied according to the precise point on which the pressure is made. It would seem that the same effects would follow whichever tubercle, the right or left, was the seat of the pressure; but whether the right or left side of the retina, its upper or its lower portion, be paralysed, must depend,

* Carpenter has remarked (*Prin. of Hum. Phys.*, p. 717) that the singleness of the impression resulting from the formation of two pictures upon our retinæ is not attributable to the anatomical arrangement above pointed out; but that their combination is a *mental process*, and "the fusion of two *dissimilar* pictures is necessary to enable us to exercise one of the highest attributes of the visual sense, the perception of *projection*." If this be so, why is *perfect vision* possible with one eye; and why, when, by the pressure of the finger, or otherwise, we compel the image to fall in one of the eyes upon another, and, therefore, not symmetrical point, the object at once becomes double? The fact is, that each point of the outer portion of the retina of the right eye has its point of symmetry in an inner portion of the left, and when from any object rays fall on those symmetrical points that object will be seen single; if not, double. This exchange of symmetry, of course, concerns only the *lateral divisions*, for the upper portion of one eye corresponds with the upper portion of the other, and the lower with the lower.

of course, on the particular portion of the optic-tubercle on which the pressure is exerted, or which becomes the seat of disease. When the hemiopia is seated in one eye only, we infer that that portion of the tubercle is affected, or the seat of pressure, whence those nervous fibres originate, which do not decussate, but pass directly forward to the eyeball of the same side. We thus, I think, have an anatomical explanation of the phenomena of hemiopia, which is entirely rational, and consistent with all that is yet known of cerebral pathology. In the case I have detailed it is undoubtedly very remarkable that the slight cerebral excitement, manifested by a temporary blush on the cheeks, should have resulted in a partial horizontal blindness of one eye, and that it should have continued unchanged for more than two years; showing either that absorption of the effused blood has not taken place, or, if it has, that the function of a portion of the nervous fibres has been lost by disuse, or disorganization, the result of long continued pressure: and those cases of functional or sympathetic hemiopia caused by indigestion, and lasting but a short time, are equally curious and remarkable. In these cases, so far as we have observed, the affection involves both eyes, but where it is owing to a permanent organic cause, as a clot, or pressure from effusion, it may be confined to one eye. The organic cause may be seated either, first, in the *retina itself*, which is liable to inflammation and congestion and their usual results, its functions being subject also to a partial or complete extinction, without itself evincing any change of structure, its sensibility alone being impaired or abolished; or second, in the *optic ganglia*, whence the optic nerves originate; or third, in the *optic nerves* themselves, in some part of their course, from the anterior part of the quadrigeminal bodies, along the thalami and the tubera cinerea, to the retinal expansion. The functional derangement of vision from worms in digestion, etc., may be accounted for, from the connexion of the retina with the par vagum, sympathetic, and other nerves. For example, branches from the great sympathetic may be traced upwards, from the first cervical ganglion, to the ganglion lodged in the cavernous sinus; whence branches proceed and communicate with the third, the first division of the fifth and sixth pairs of nerves; while branches pass from the cavernous ganglion directly to the lenticular ganglion; besides, as the internal carotid artery passes into the cranium, it is surrounded by the sympathetic nerves, which accompany all its ramifications, including the ophthalmic artery, and its branches to the choroid, iris, and retina; branches also of nerves proceed from the lenticular ganglion to the iris, giving off minute twigs in their course to the retina. Morbid states, then, of these nerves, or irritation of their expanded extremities on the gastro-intestinal membrane, may be reflected upon the optic nerves, or the retina, or iris, and derangement of vision follows.

After what has been stated it is unnecessary to speak of the predisposing or exciting causes of hemiopia, whether functional or organic, as they are sufficiently obvious. Nor need the principles of treatment be dwelt upon, as they are equally evident.

PEEKSKILL, 1862.

ENORMOUS SACCULATION OF THE BLADDER.

By Wm. WARREN GREENE, M.D.,

GRAY, MAINE.

I was called, Dec. 1st, 1861, to see Moses Burnett of New Gloucester, aged eighty-four years, who gave me the following history:—For six or seven years he had suffered from dysuria, being always obliged to strain a good while before passing his water. Three years ago last March he slipped upon the ice, and fell, striking directly upon the ischiatic tuberosities, at which time he "felt something give way" in the abdomen. Ever since this he has suffered more or less from pain and soreness in that region, and from an unnatural fulness of the bowels, which he first noticed a few weeks subsequent to the fall, and which steadily increased. He did not remember the exact point at which the increased fulness first showed itself. The difficulty of micturition had been greater since the fall, and he could pass only a tablespoonful at a time. He had never been subjected to catheterism, and during a treatment of several months subsequent to the fall he was unable to realize any benefit from medicine. His family physician, Dr. Farnham, of New Gloucester, not being present, I had no benefit from his previous knowledge of the case, although the patient informed me that the diagnosis was "hydatids of the liver;" this opinion Dr. F. subsequently reported to me. Mr. B. was suffering especially at this time from severe epigastric pain and pressure, and it was for the relief of this that he consulted me.

Upon examination of the abdomen I found marked enlargement, but not by any means in a degree commensurate with the extreme tension upon palpation, and dulness upon percussion, which existed over the whole surface. Slight tympanitis at some points along the track of the colon was the only exception to perfect flatness on percussion. The parts did not present that regularity of outline which obtains in ascites, but curving upwards and to the right from near the symphysis pubis, and losing itself about midway between the umbilicus and the superior spinous process of the right ilium, was a well marked linear depression, into which the fingers could be laid. Above, and to the left of this, the abdominal surface was regularly protuberant, and fluctuated distinctly upon palpation. Below this depressed line, *i. e.* in the right iliac fossa, was a marked prominence, fluctuating distinctly, and quite tender on pressure. This was the only tender point upon the whole surface. At this point, too, the distance between the finger and liquid seemed less than elsewhere. There was no œdema, and the skin was everywhere movable over the tumor. By careful and repeated percussion I satisfied myself that there was a communication between the two portions of fluid on either side of the curved line referred to, but evidently not very free. An examination *per rectum* revealed great tenderness and enlargement of the prostate gland. I introduced a medium-sized catheter into the bladder with but little difficulty, and drew off perhaps a teaspoonful of healthy urine, and no more. I say the catheter passed *into* the bladder, but just as it apparently made its entrance it met with some firm obstruction. By turning the beak a little to the left (the patient's right) it passed a trifle further, but no more urine was obtained, the tenderness of the parts rendering any manipulation extremely painful; and the patient being so aged and feeble, I did not deem it proper to sound the parts as thoroughly as I should have done under different circumstances.

My diagnosis, as expressed to the friends, and Dr. Kilgone, of Windham, who incidentally saw the case with me, was encysted liquid, with partial bi-section of sac: but what was the exact nature or origin of sac or contents, I could not decide satisfactorily to myself. From the results of catheterism I inferred that the cavity of the bladder was nearly obliterated by external pressure from the morbid growth.

Telling the friends that nothing beyond palliation by anodynes could be done, that "tapping," which had been proposed and urged by members of the family, was not warrantable, I left the patient with the promise from the family of an opportunity of completing my diagnosis upon the cadaver, when death, which was evidently near at hand, should occur.

Dr. K., while he waived giving any opinion, agreed with me in the propriety of non-interference by operative procedure.

Death occurred Dec. 11th, thirty-six hours subsequent to which I made the autopsy, Dr. Farnham, of New Gloucester, present, and assisting. Dr. F. told me that he saw Mr. B. four days previous to death, and finding he had not urinated for thirty-six hours passed the catheter as far as possible into the bladder, "a very small amount" of urine

passing, after which any attempt to pass it further caused great pain, and considerable hæmorrhage. From that time to his decease no urine was passed.

On uncovering the body I noticed that there was some dribbling of urine from the penis, and that enough had escaped to saturate the clothes upon the parts. Also the abdominal tension seemed correspondingly lessened. Pressure upon the *right* hypogastrium increased the flow, while pressure upon the *left* corresponding region *completely arrested it.* I now passed a small-sized sound into the bladder, and found the same difficulty as in life; but by carefully deflecting the beak towards the right iliac fossa, with a little manipulation I succeeded, as ascertained by the finger on the surface, in passing it onward, and bringing it up to the point spoken of as being prominent, tender, and fluctuating. I now withdrew it, and directing Dr. F. to make firm pressure with the hand upon the *left* hypogastrium, I again introduced the instrument, and found it impossible to carry it by the point of obstruction with any moderate force, *till the pressure was removed.* I was, during this operation, careful to prevent the escape of urine, as also through the subsequent steps of the examination.

The abdominal walls were opened by a crucial incision, and reflected from the surface of the sac. This was accomplished with some difficulty, as numerous and firm adhesions existed between the peritoneum and cystic walls. Upon making a small incision into that portion of the sac below and to the right of the curved, depressed line, I found it to be the urinary bladder hypertrophied, and the curved depression the boundary between it, and an immense diverticulum, which completely filled the rest of the abdomen; crowding the line and stomach completely out of sight. This sac contained almost a gallon of limpid urine, by measurement, and I have since ascertained by careful experiment—I have the specimen in my possession—that it will hold a little more than a gallon. The hypertrophy of the bladder is confined principally to the posterior wall, the maximum thickness of which is one inch and a quarter, the internal surface resembling the columnæ carneæ of the heart. The communication with the diverticulum is by an opening upon the left side, four inches from the neck, about one inch and a half in diameter, having a regular outline, and smooth edges. The walls of the pouch are made up of a prolongation of the mucous and peritoneal tunics of the bladder, the muscular coat being wanting. The prostate gland is as large as a medium-sized orange.

The history of the case, both *ante-* and *post-mortem*, suggests the following explanation of the origin of the sacculation, and the symptoms to which it gave rise, viz. that the primary dysuria was caused by an enlarged prostate gland, combined, perhaps, with partial paralysis of the muscular coat of the bladder; that when he fell the bladder was distended with urine, and that by counter-stroke a breach occurred in the muscular wall of the bladder, allowing a small pouch of the mucous lining to protrude, the size of which sac would be constantly increasing under the accumulation of urine, and the violent expulsive efforts at micturition, which, weakened by the very condition they were increasing, were expended with very nearly the same force upon this point as upon the urethral orifice, and after reaching a certain size it made room for its further increase by carrying the bladder outward into the right iliac fossa; and, furthermore, after filling the whole abdominal cavity, crowding all its viscera into the concavity of the diaphragm, as fluids press in all directions alike, a certain amount of pressure was thrown upon the *left side of the bladder, below the points du départ* of the sac, thus forcing the vesical wall at this point down upon the vesico-urethral opening like a valve. And here, in confirmation of this explanation, I will state what I omitted in its proper place, that at the examination Dr. Farnham called my attention to an ecchymosed condition of the mucous membrane at this point, which was no doubt caused by the point of the catheter during life. Thus we have a clear explanation of the difficulty of catheterism, and although, in the light of an autopsy, the case appears beautifully simple, yet I confess I do not see any possibility of establishing an accurate *positive* diagnosis in life; impossible as it was to sound the bladder, at least with any safety to the patient.

It is easy to conceive that, had this case occurred in a patient more youthful, or rather less aged and more vigorous, it might have afforded a painful paragraph in the literature of operative surgery.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, February 12, 1862.

DR. T. C. FINNELL, PRESIDENT, IN THE CHAIR.

INFLUENCE OF CHRONIC PLEURISY ON THE DEVELOPMENT OF PHTHISIS; PNEUMO-HYDRO-THORAX; PERICARDITIS.

DR. AUSTIN FLINT presented a specimen of a heart, and remarked upon it as follows:—The patient from whom the specimen was removed I saw for the first time in Bellevue Hospital, the early part of September last. He gave then this history:—He had had cough, with some expectoration, for ten months, and during this time had had one or more attacks of hemoptysis. He, however, continued his work as a laborer, and while engaged in rolling a barrel, some three or four weeks before his entrance, he felt suddenly an acute pain in the left side, as if something had given way; His pain continued; there was dyspnœa on attempting to exercise, and he took to his bed for three days, then arose, and was able, with some difficulty in his breathing, to get about. When I saw him in September, he did not present a particularly morbid aspect, and was able to walk about with much difficulty. The left side of the chest was found to be dilated, and comparatively motionless on respiration, giving at its superior portion some tympanitic resonance, with flatness at the base. The heart was crowded to the right side, and succussion could be easily produced, making it evident that pneumo-hydro-thorax existed. On resuming my attendance, Dec. 1, not having seen the patient during October and November, I found him up, and able to take considerable exercise without much inconvenience. The left side of the chest was, however, still more dilated, yielding absolute flatness on percussion, with complete silence of all auscultatory signs. He remained in this condition for some time, but after a while the fluid began to accumulate, causing great distress in breathing. He was then very anxious to have the chest opened, but I objected to the operation, thinking that perhaps the removal of the liquid might lead to perforation of the lung, and renewal of the pleurisy. However, his sufferings increasing upon him so rapidly as to render his life in danger from suffocation, I consented to have the fluid drawn off. This was done by Dr. Sayre, in presence of the class. A free incision was made at the lateral and lower portion of the chest, giving exit to a large quantity of turbid liquid, which had a slightly fetid odor. The patient was very much relieved thereby, and for some time afterwards expressed himself as feeling very comfortable. On examination, however, the usual signs of perforation of the left lung were very evident; there being present amphoric voice, amphoric respiration, metallic tinkling, and tympanitic resonance. The opening, contrary to our intentions, closed, but soon after opened again, when sufficient fluid had accumulated. A constant discharge of fluid, similar in character to that already described, was kept up for two or three weeks, at the end of which time death took place by exhaustion.

I was not present at the autopsy, but perforation of the lung was shown to exist by inflation through the trachea with a bellows; air freely bubbled up through the liquid, in the chest. The left lung was very much compressed, and the right lung presented some emphysematous

lobules at its upper portion, and also some evidences of tuberculous deposit.

It was ascertained that the patient had had pericarditis. There was universal adhesion of the pericardial surface, though not very firm, except at one point, where there was quite an organized band. On the side where pneumo-hydro-thorax existed, at the summit of the lung, were a few old, small characteristic tuberculous excavations. In removing the lung a portion of the tissue of the organ in this situation was so fast adhered to the chest that it was left behind. Throughout all the other portions of the lung, there were no evidences of tubercle.

The points of interest in the case I suppose to be these:—In the first place, the occurrence of pneumo-hydro-thorax with pericarditis in a patient, who after a short time was able to take exercise without suffering. I think this is rare, although I have met with two or three cases somewhat similar. Another point in the case is the evident arrest of the tuberculous disease. There had evidently been, for some time before the death of the patient, and probably during the time he was affected with pneumo-hydro-thorax, no fresh deposit of tubercle. The tubercle that had been deposited at the apex had undergone its changes in the formation of cavities when the disease had undergone arrest. That fact is interesting to me in connexion with the impressions I have received, as the result of clinical observations, that the occurrence of chronic pleurisy in the course of tuberculous disease leads to the retardation of the latter affection.

Dr. Clark remarked, with reference to the last statement of Dr. Flint, that some fifteen or twenty years ago it was proposed to puncture the chest in cases of tuberculous disease of the lungs, and take the consequences in the hope of a cure by compression. He did not think that the treatment gained currency, although the practice was no doubt founded upon the same general observations as referred to by Dr. Flint. Dr. Clark had frequently noticed that the development of tuberculosis was retarded by compression of the lung.

VEGETATION ON MITRAL VALVE, HYPERTROPHY OF HEART, ETC.

Dr. Flint presented next a heart, taken from a female, æt. 35, who recently died in Bellevue Hospital. She entered the Institution on the 10th of December, had had rheumatism nine years before, had suffered many years from want of breath on exercise, and had finally been affected with general dropsy a few weeks before her admission. When I saw this patient, continued Dr. F., she had anasarca with liquid effusion in the cavities, was suffering with dyspnœa, presented lividity of the prolabia and face. On examining the chest there was an extremely loud systolic murmur heard with its maximum of intensity at the apex, and propagated to the left as far as the spinal column, and even to the right of it. This was the only murmur that could be discovered. The heart was evidently somewhat enlarged, the apex beating in the sixth intercostal space on a vertical line with the nipple. The aortic first sound was feeble, the aortic second being quite intense. This patient failed rapidly, the dyspnœa became more and more urgent, the anasarca more extreme, and she died with that slow lingering death from apnœa. The urine, which was examined while the patient was under my care, presented no evidences of albumen, although it was said to have contained it at a previous time.

The heart when removed weighed twelve and a half ounces. The right ventricle is dilated and hypertrophied, the walls being three-eighths of an inch in thickness. Both the auricles are largely dilated. The walls of the left ventricle are not increased in thickness, and its cavity is not much, if any, dilated. This condition is somewhat unusual with disease of the heart inducing general dropsy and death. There was free regurgitation through the mitral orifice, and the enlargement of the other portions of the heart, viz. the two auricles and the right ventricle, is perfectly consistent with that condition of things. The right cavities were filled simply with dark coagula, a fact which shows that the mere accumulation of blood in these cavities, the cause of death being paralysis, does not necessarily lead to the formation of ante-mortem clots. These latter in all probability depend as much upon the condition of the blood at the time as its mere stagnation.

The interesting point connected with this specimen is, not the contraction of the mitral orifice, which is common enough, but the presence of two vegetations of considerable size, one as large as a bean, the other somewhat smaller. The larger one is attached to the papillary muscle of the inferior curtain by what appears to be a small pedicle, which is a fractured extremity of one of the tendinous cords. The vegetation is produced, as I suppose, by the accretion of fibrine upon it. The other concretion is upon another tendinous cord which has not been fractured. These vegetations were so situated as to be pushed backwards and forwards by the direct and regurgitative currents, and being thus moved were very liable to be detached, and to have produced an embolus. It is easy to see if the vegetation had been found plugging up any of the arteries after death that the place of its original development could have been easily determined—especially if a portion of the tendinous cord were carried with it.

Dr. Clark asked if any of the tendinous cords were ulcerated, as it was rare that rupture occurred without such a pathological process pre-existing.

Dr. Flint had found no evidences of ulceration of the parts alluded to.

BRIGHT'S DISEASE SUCCEEDING DIABETES.

Dr. Alonzo Clark next exhibited a specimen of Bright's disease, and recited the following history of the case:—

A child ten years of age, was attacked with pneumonia a little more than a year ago. The disease ran its usual course, and the recovery was apparently complete. Two months after this it was noticed that the quantity of urine passed was very much greater than usual. The family physician, Dr. Linsley, had his attention called to this point, and very soon after asked me to see the girl with him. We examined her, and found that the quantity of urine passed during the day amounted to a gallon. Its specific gravity was 1036, and the quantity of sugar which it contained was very considerable; in other words, it was a case of diabetes. It went on as diabetes for several months, the quantity of water being diminished very much, and the quantity of sugar in it decreased while she was taking the alkalies pretty freely; and subsequently to that Champlin's cakes were recommended, this being while she was in the country during the summer. On the return to town in the autumn the mother had an objection to restraining the child to diet, and thinking it was hardly worth while to administer medicine, as it was an incurable disease, very little medicine was given. The physician at this time saw the child but little. During the latter part of its life she was allowed to eat cakes, candy, indeed almost everything. She retained her flesh very well. About a fortnight before her death it was noticed that she had a fever, and that the quantity of urine was diminished, and its color changed. I suppose it had lost the faint straw color that diabetic urine usually has. The mother stated that it was less watery, and that it bore a bead a long time after it had been passed. On a Saturday night the mother noticed that this fever was more intense than it had been at any time previously, the child being very restless. Dr. Linsley early in the morning following found the pulse 140, with a great deal of restlessness, and in the course of the day invited me to see the girl; an interval of eight or nine months had then elapsed since my last visit. We found the pulse still up to the high figure referred to, and the face, which was a few days before rosy, was then pale, the nervous restlessness had not abated, and she had severe pain in the left side and chest, giving rise to the suspicion of pleurisy, which, however, did not exist. There was also a great deal of pain in the stomach, a little vomiting and disposition to stupor, with a contracted con-

dition of the pupils. The thought struck us that there must have been some change in the phase of the principal disease. There was no pneumonia present, though there was discovered some dulness at the base of the left lung with crepitation. A small amount of œdema about the feet and legs was also noticeable. At our next visit during the afternoon of Sunday, the crepitation and dulness had all gone, yet pain still remained. The same mental condition continued, though there was less moaning. The respiration had become very remarkably embarrassed by laryngeal spasm. In the meantime I obtained the urine, which had become about one-third less than it had been during the diabetic stage of the disease. It was found, in addition to the sugar it contained, heavily charged with albumen, granular casts being also in abundance. The specific gravity was 1020. Death occurred on Monday night, having been comatose only about three hours.

A post-mortem examination was granted by the parents, and all the organs of the body liable to be in any manner connected with the disease were inspected, with the exception of the brain and spinal cord. The kidneys were about the size of those organs in the adult, and were of a pale hue. Microscopical examination proved the existence of fatty degeneration; none of the uriniferous tubes contained healthy epithelium, and most of the cells were loaded with fat. The intertubular tissue was in a state of granular and fatty degeneration; in a word, Bright's kidney existed, though not far advanced.

We were interested in the examination of the other organs. Not a tuberculous grain could be found in one lung, and none could be felt in the other. The post-mortem examination also showed that the dulness and crepitation that were noticed at the base of left lung at the first visit on Sunday had left no mark; no pneumonia; no pleurisy; no abscess. The pain was doubtless due to a hyperæsthesia over the whole chest.

The liver we examined, and I reserved a small piece of it for microscopic inspection. There were two bands upon the surface, which gave unmistakable signs of fatty degeneration, but taking a portion which exhibited no particular marks, and examining it microscopically, I found it in a condition very similar to that described in the kidney. The cells were almost all of them fatty, and there was a certain amount of granular exudation in the tissues; whether this condition belonged to the diabetes or not I am unable to say. The liver was large for a child of her age.

The heart was about natural in size, and I was interested to know in connexion with this disposition to fatty disease in the kidneys and liver that there was some atheroma in the arteries, and that in the mitral valves were two spots of considerable size in which the atheromatous deposit was quite marked. These are the prominent features in a case which has interested me as the first one in which I have known of diabetes being converted into, or replaced by, Bright's disease.

I have no doubt that the child died of uræmia, but here was still sugar in the urine and the quantity of that secretion was large.

Dr. Bibbins remarked that, being a friend to the family, he had seen the child but a few days before death, and was much surprised, considering the beautiful color of the cheek, to learn that it had Bright's disease.

VALUE OF BRONZE SKIN IN DISEASE OF SUPRA-RENAL CAPSULES.

Dr. Clark presented a pair of kidneys, with suprarenal capsules attached, which had been sent him by Dr. Hogan of the New York Hospital. He had no detailed account of the case to give, it was sufficient to refer to a single point in that connexion:—A person was admitted into the New York Hospital with grave symptoms, and seen by Drs. Bulkley and Cock, was, on account of the bronzed discoloration of the skin, pronounced to have the mark indicated by Dr. Addison as attending disease of the supra-renal capsules. These organs, on post-mortem examination, were found healthy. This was among the many instances of exception to the rule laid down by Addison.

Dr. Flint had met with a case in the New Orleans Charity Hospital, of marked bronzing of the whole cutaneous surface associated with idiopathic anemia. The supra-renal capsules, however, were found after death perfectly healthy.

SCROFULOUS DISEASE OF THE EPIDIDYMIS.

Dr. Finnell exhibited a pair of testicles removed from a shoemaker, sixty-two years of age. About two years ago, when first seen by Dr. Finnell, he complained of pain and distress in both testicles to that degree as to prevent him from following his vocation. The pain was for the most part in the situation of each epididymis, and would not unfrequently shoot up the cord and occasion a good deal of distress in the lumbar region. On examination the testicles proved to be very little increased in size, but each epididymis presented a firm cartilaginous feel. Small doses of iod. pot. were prescribed, with an occasional anodyne, and relief from pain was afforded for a few months, when a small sinus formed on one testicle, to be shortly after followed by one on the opposite organ. Both discharged a small quantity of ill-conditioned pus. Becoming much annoyed by the pain and the discharge he desired relief by castration, and for the purpose of having the operation performed entered St. Vincent's Hospital. A consultation was held, and it was deemed unadvisable to interfere with the knife, but belladonna was prescribed internally and locally. His condition improved, and when he left the institution one of the sinuses had healed, and the diseased parts did not seem to have enlarged. During his stay, however, he was subject to frequent and imperfect micturition. No stricture of the urethra was discovered. He shortly after returned with an attack of acute pneumonia, of which he died.

On post-mortem examination both testicles were found healthy, but throughout the whole extent of each epididymis tuberculous matter was deposited; and in one of the organs a small cavity was found.

The society then adjourned.

Clinical Instruction in San Francisco.—The students of the Medical Department of the University of the Pacific will, in future, enjoy the benefits of clinical instruction to the fullest extent. The City and County Hospital, constantly filled with interesting cases, composing nearly every form of disease to which our coast is subject, is now open to them. The St. Mary's Hospital, under the supervision of the ever zealous and self-sacrificing Sisters of Charity, which bids fair to be one of the noblest and most prosperous institutions for the sick, will, as we are assured by one of the attending physicians, admit the class during the last half of the present session, and, after that time, continuously during future sessions. These, associated with the surgical clinics of the Pacific Clinical Infirmary, constitute an amount of bedside instruction seldom offered to medical students.—*San Francisco Med. Press.*

Twenty-third Annual Report of Board of Trustees and Officers of the Central Ohio Lunatic Asylum for the Year 1861.—This Institution, as our readers are aware, is located at Columbus, O.; Dr. R. Hills, Superintendent. The daily average number of inmates during the year was 262; the whole number under treatment was 421. The whole number discharged recovered was 107; improved, 14; unimproved, 33; died, 15. The whole number admitted from the opening of the institution until the end of the last year, a period of twenty-three years, 3857. The percentage of recoveries on all these is 51.87; on all cases recent when received, 71.32; on all cases chronic when received, 24.30. Thus it will be perceived that the chances of a cure are much increased when treatment commences when the case is recent. During the period of twenty-three years, of the whole number admitted, the disease was hereditary in 752 cases; periodical in 348; suicidal in 456; homicidal in 189.—*Cin. Med. and Surg. News.*

American Medical Times.

SATURDAY, MARCH 29, 1862.

PRACTICAL REMARKS ON THE MEASURES OF REFORM IN THE MEDICAL DEPARTMENT OF THE ARMY.

In looking over the discussions upon the several medical reform bills presented in Congress, we have been deeply impressed with the fact, that the leading minds of both Houses are anxious to do full justice to the regular Staff, and to give full credit for the meritorious services of our medical brethren of the Army, both regular and volunteer; but that, unless our Congressmen are met and guided by liberalized and enlightened suggestions from the regular Staff, the honor and welfare of that Staff, and the highest interests of the Army, are likely to suffer at the hands of an impetuous and patriotic majority that feel bound to take summary measures, if need be, to secure more effectual and prompt protection to the life and health of the people's Army. The claims of the regular Staff have been ably defended by leading Senators, and whenever that Staff expresses its approval of any adequate plan to meet the existing emergencies of the Army, it will be found that the sentiments that were so nobly expressed by those Senators will prevail. Said Hon. Mr. Rice:—

"We have a contract with the officers of the Army. When the Surgeons, Assistant-Surgeons, and all the officers of the medical corps came into the service, they abandoned all the civil pursuits of life, and came in under an implied contract that they should be benefited by promotions, etc." * * * These are new offices, I know; but we have no right, morally, to go into civil life to select gentlemen, or place them above officers with whom we have made a contract. * * * It is an innovation that has never been made in the Army, and I hope the door will not be opened now. I venture to say, that the *best* medical officers in the volunteer service would not accept these positions."

It is understood that the Sanitary Commission originally suggested the plan for the institution of the proposed new branch in the Army Medical Department, to be specially devoted to administrative and sanitary duties; and, as we have been informed, that Commission is unanimously in favor of having the chief officers of that branch, as named in the Bill, selected and appointed from the regular Staff. But, of course, in carrying out any effective plans for the better sanitary surveillance of camps and hospitals throughout the volunteer army, all the brigade and division surgeons of that army would necessarily become co-ordinate and co-operative with the new administrative branch of the regular medical department. And without the institution of such a branch, devoted to systematic sanitary inspections and administrative improvements, the brigade, as well as regimental surgeons of volunteers, will measurably fail even in their best efforts to meet the obligations they have assumed. As to the propriety and importance of having that branch of the service directed by officers of the regular Staff, who are experienced in military life, we do not think the point admits of a question. But the time is at hand when something must be effectually, if not most wisely, done to meet the exigencies of our rapidly advancing army; and if our brethren in the regular Staff do not devise some practical plans that shall be accepted by Congress, the direction of affairs in the medical department will be likely to fall into the hands of unworthy aspirants, to whom Senators Hale, Foster, and Fessenden would widely open the door. In the progress of the first Medical Bill through the Senate those gentlemen had it their own way. Said Senator Fessenden:—

"If you want good officers enlarge your circle. If you want the best men you can get—and you do want them—do not confine the selection to a little knot of men, but enlarge it, throw it open to the distinguished gentlemen who have volunteered and are in the service, and are competent to render the very best service in the line of their profession."

This kind of argument accomplished its purpose, and the Bill was amended accordingly. But, as we stated last week, the Military Committee of the House has been more conservative, and now the Staff may give success to the right measures. We pray the resident members of the Staff at Washington to make no delay in this matter; for unless they now show their hand, the popular cry of reform and change will break down all the safeguards of the Staff and the Medical Department. Some of the unhappy results that must follow the overthrow of the Staff are foreshadowed in the following remarks of the President's intimate friend, Senator Browning:—

"The only applicants that there will be from the volunteer service for promotion, and for the chief positions in this corps, will be the class characterized by the Senator from Minnesota, and the Senator from Oregon, as medical and political quacks; and *it will subject the President to a degree of harassment and vexation that I am not willing to impose upon him*, by this or any other Bill. There will be hundreds of men unfitted for the position bringing political influences to bear to get them into those places of honor and responsibility, to the great detriment of the service, when they can bring it no ability, no valuable service whatever. It will have a tendency to demoralize the Medical Corps of the Army. I am very sure that it is *that* class who will seek these appointments. There may be honorable exceptions, there may occasionally be a man of distinguished ability, and of eminent qualifications, in the volunteer force, who would desire to enter the regular service; but these instances would be exceedingly rare; generally the applicants would be that class of men who ought not to be promoted, and yet who could bring political influences to bear in aid of their promotion. * * * I am perfectly satisfied that the amendment (to make selections at large), if adopted, will be productive of injury, and not of good: opening the door to a scramble for the medical offices in the Army, just as there is a scramble going on constantly where there are offices to dispose of among politicians—unworthy men, men that are not actuated by patriotic motives, men urged forward by selfish considerations, without qualifications entitling them to the position."

It is not pretended that the members of the regular staff are superior to the best class of volunteer surgeons in ordinary professional knowledge and skill, but it is reasonably presumed that, in the more strictly military and administrative portion of the service, the former should have in its ranks the highest qualifications. And from the tenor of the discussions in Congress the old staff are manifestly, and to us it seems justly, to be held responsible for the duty of giving the proper system and efficiency to the entire medical service of the volunteer army. Crippled and depressed

from lack of military rank and authority though it has long been, still the old staff embodies more than one hundred officers, whose accomplished education and moral positions entitle them to a controlling influence upon all measures necessary for the medical and sanitary interests of the Grand Army. In this respect we believe the powers of the staff are competent even to correct the abuses and neglects that have crept into the volunteer medical corps. We are fully aware that the staff is already overworked, and that whole regiments of regulars are now in the field with only a single assistant surgeon of six months for their medical and surgical care. But it is just this of which the people and the profession justly complain. They demand that there shall be *no lack of the best medical services.* Whatever may be needed to this end the Government will gladly authorize, and the people will cheerfully pay for. Indeed, the people are impatient upon this subject, and we believe they have reason to demand better and more care for their noble sons in the volunteer army. Said the Hon. MR. BLAKE in the House of Representatives last week:—

"I have no doubt that the Army of the Potomac has been well and medically provided for; but it is not so as to the Western boys, who have been murdered by neglect. I have received letters from fathers and mothers beseeching me to have something done, so as to save the lives of their children."

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The lectures "*On the Diagnosis and Treatment of the Principal Forms of Paralysis of the Lower Extremities*," are a natural sequence of those "*On the Physiology and Pathology of the Central Nervous System.*" Those minds which still look upon obscure questions of medicine as impenetrable mysteries, involving the curative art in doubt, and unaware that, whatever its purpose, art cannot exist but on true principles, will probably pass over these books as too speculative, and, therefore, barren; but certainly they must greatly misjudge them. They are replete with remarkable and accurate experiments which, combined with numerous pathological cases, most of them borrowed from different observers, directly trace the etiology of the nervous affections. The volume on the physiology and pathology of the nervous centres, places these subjects upon clearer and more positive grounds. It bears in its whole as its sequel the stamp of our anatomo-physiological school, which, unsoiled by the dust of tradition, and guided by true principles, has ever prevented that absurd distinction between a *theoretical* and a *practical*, or so-called *clinical* medicine. Both works, the fruit of mature learning, offer extensive matter for deep and useful reflection, and in their pages no common cause, nor any theory, whether plausibly ventured upon in order to answer the difficulty in every instance, has a place, unless sanctioned by combined experiments and correct clinical observation.

It is impossible for us here to enter into the analysis of all the particulars detailed by Dr. Brown-Séquard, in the lectures on the physiology and pathology of the central nervous system. We will merely glance at those striking points which shall enable the reader to form an opinion of their bearing. For this purpose it is necessary to alter the author's wise arrangement, condensing separately the physiological and clinical deductions. The valuable discoveries of many eminent physiologists authorized us in concluding that the true functions of each organ in the cerebro-spinal axis was finally determined. Nevertheless, the facts put forward by Dr. Brown-Séquard, and the conclusions at which he has arrived, are quite opposite to many previously admitted views on this subject. Let it not be imagined, however, that the great discovery of Sir Charles Bell, concerning the distinction between the anterior and posterior roots of the spinal cord, has been upset by his worthy successor. On the contrary, the last objections urged against it are completely removed by Dr. Brown-Séquard, who proves that the pain attending the irritation of the anterior roots is not due to any sensitive faculty, but to a cramp produced in the muscles; and that the local movements sometimes induced after excitation of the posterior roots, are only reflex movements: the excitation going to the cord, and from thence to the muscles through the anterior roots. A change in the galvanic state of the muscle causes the pain in the first instance; and the greater the resistance to contraction, the greater the galvanic excitation of the nerves in contact with the muscles, which exist not when there is no resistance after the section of the tendon, as shown by Matteucci. These phenomena plainly account for the pains of the uterus during parturition, of the sphincter in fissure of the anus, of torticollis, etc. As a consequence, tenotomy of a contracted muscle at once diminishes the attending pain, or it completely disappears. Our movements seem likewise guided by that peculiar sensation we derive from the galvanic irritation of certain sensitive nerves of muscles while they contract.

One of the questions most thoroughly investigated by Dr. Brown-Séquard is the transmission of our impressions to the encephalon. He has entirely overcome the difficulty of experimenting upon the spinal cord, the main cause of disagreement once prevailing upon this cardinal subject, and gives us the following results of his researches:—Part of the anterior columns, and chiefly the central grey matter (not excitable in itself, though becoming so when inflamed), are in the spinal cord the channels of sensitive, as well as of pure tactile and painful impressions. The sensitive conductors from the trunk and limbs decussate in the central gray matter shortly after entering either directly, or after going up and down a little way in the posterior columns, and most likely too, in the posterior part of the anterior columns. The arrangement is such that every small portion in the cord seems to contain conducting elements from all the points on the opposite side of the body: a disposition explaining the rarity of complete anæsthesia in diseases of the spinal cord.

The restiform bodies, a continuation of the posterior columns, and the cerebellum connected with them, do not receive any sensitive elements. Vivisections, and several instances of diseases in those organs, prove that no loss of any kind of sensibility takes place under such circumstances. Even in cases of absence, or total destruction of the cerebellum, sensibility has persisted; and it is particularly deserving of notice that diseases of the cerebellum, or its extirpation in animals, determine the want of co-ordination of movements by irritative influence upon the unaltered parts of the encephalon, and not on account of the absence of that nervous centre. The mass of evidence sustaining these facts overturns the theory of Longet and others, who believe that sensitive impressions are transmitted through the posterior columns, and that their place of decussation is in the restiform bodies. To destroy every doubt Dr. Brown-Séquard adds to many corroborative pathological cases on record the evidence of experiments, which prove that a transversal section of the posterior columns brings on hyperæsthesia, instead of anæsthesia, which is, however, complete, when all the cord but the posterior columns is transversally divided.

The grey matter of the spinal cord, besides serving as intermedial between the encephalon and the sensitive conductors, has also great share in the conveyance of the orders of the will, never passing through the posterior columns, and likewise traversing more through the cervical than the dorsal and lumbar regions of the anterior columns.

The posterior columns are the principal channels for excitations which produce reflex movements. An alteration in a small part of their extent does not impair these latter movements; but if it occupies all their length and thickness, or the whole of the lumbar swelling, it brings on a loss of the reflex actions of the limbs, and upon it impossibility of standing and walking. However, in bed the patient can move easily the lower limbs. The anterior columns everywhere, except in the upper part of the cervical region, have a large share in voluntary movements, the conductors of which chiefly decussate in the anterior pyramids. Above and below them there is no decussation of the voluntary motor-fibres of the trunk and limbs. This view, already advanced by Mistichelli, Pourfour, du Petit, and others, and now confirmed by the researches of Dr. Brown-Séquard, disproves the theory of Cruveilhier, Todd, Foville, Valentin, Longet, and other authorities, who admit the decussation of nerve-fibres all along the median line of the base of the encephalon.

(*To be Continued.*)

Correspondence.

AMAUROSIS BY INJURY OF THE SUPRA-ORBITAL NERVE.

[To the Editor of the American Medical Times.]

Sir:—In your issue of the 15th inst. is the record of a very interesting case of *amaurosis by injury of the supra-orbital nerve*, observed by Dr. Henry D. Noyes. He considers this instance a direct proof that amaurosis may depend upon injury of the supra-orbital nerve; but not finding how to explain positively the filiation of the phenomena exhibited by the patient, he concludes that to connect them understandingly is certainly very difficult. However, from the details of the case, and from the accurate

examination of the eye with the ophthalmoscope, it seems evident that the real cause of the disease exists in a morbid reflex action of the supra-orbital upon the optic nerve, the patient having, therefore, *reflex amaurosis.*

That reflex actions are, more than generally suspected, the source of disturbances in nutrition and in functions of the same nervous system, is now a truth proved by the researches of Dr. Brown-Séquard and other physiologists. The eye is precisely one of the organs that gives the most evidence and the most frequent examples of this kind of derangement. Surgeons are well aware of the facility with which inflammation and other diseases communicate from one to the other eye. Besides, Morgagni, Deval, Notta, and several others, have recorded numerous instances of amaurosis from neuralgia. The coincidence of both diseases, the fact that the one yielded when the other was cured, or that section of the nerve between the place affected and the brain, abolishing reflex action, made also amaurosis disappear, convince that this latter could not be consequent but upon the morbid reflex influence exerted upon the optic nerve. Moreover, it is not only amaurosis which ensues on injury as well as on neuralgia of the trigeminal nerve. Notta observed twice a cataract produced in a healthy eye: one after a wound of the frontal nerve, and the other after neuralgia of the same nerve. Prof. Paul F. Ere of Tennessee, U. S., suggested the idea of the extirpation of a carious tooth to Dr. H. F. Campbell, in a case of ophthalmia, and the operation having been performed, the patient was at once cured.* Yet the reflex influence upon the eye may start from distant organs; therefore, the stomach, the uterus, the kidneys, etc., may be often the origin of the disease. Amaurosis, deafness, aphonia, have been immediately cured after expulsion of a tænia, and these, as the preceding facts, could not be otherwise considered than the reflex effect of the irritation upon the intestinal mucous membranes, or on the already mentioned organs. As in the beginning stated, the whole nervous system may be affected in a similar way, for paralysis, epilepsy, chorea, eclampsia, insanity, etc., may be seen as the result of such a morbid influence, likewise capable of determining the most remarkable changes in nutrition: as inflammation, gangrene, and other diseases of the skin, bones, etc.

The distant influence of an organ upon another is easily demonstrated in physiology—and the following experiment, due to Cl. Bernard, is one of the most evident proofs of such phenomenon. Four or five days previous to hatching, the crop, both in the male and female of pigeons, is covered with large papillæ, secreting a whitish liquid like milk. If one nerve pneumo-gastric, in a pigeon who broods, is divided two days before hatching, the bird abandons the eggs and afterwards dies. On examining the crop the papillæ will be found scarcely apparent on those parts corresponding to the divided nerve, whilst on the contrary they will be most developed on those supplied by the nerve lasting untouched. Now, could a reflex action be more striking? Nor could any other cause account better for the following phenomena:—secretion of milk brought by irritation of the womb or the vagina; menstruation by irritation of the mammæ; perspiration of the face after excitation of the nerves of the taste; the frequent appearance of a herpetic eruption supervening upon neuralgia of the nerves supplying the affected skin; paraplegia from affections of the lungs, the bowels, the genito-urinary organs, or any irritation on a sensitive nerve; and lastly, other kinds of paralysis, as well as of nervous derangements, arising out of peripheral irritations? May we not assert then fairly, that the case recorded by Dr. Noyes, so identical with those here metioned, is one of *reflex amaurosis*, notwithstanding the opinion of Haynes, Walton, Müller, Sichel, and those who emphatically deny, without positive proof to sustain their absolute assertions, that amaurosis, when associated with lesion of the nerves in the forehead, is due to coincident injury of the eye and of the optic nerve?

Yours, etc.,

M. Gonzalez Echeverria.

New York, March 17, 1862.

* For this and other analogous cases proving the influence of reflex action on the production of many diseases, see Dr. Brown-Séquard's Lectures on the Physiology and Pathology of the Nervous Centres. Phila. 1860, p. 151 et seq.

INFLUENCE OF CONCURRENT DISEASES ON VACCINE VIRUS.

[To the Editor of the American Medical Times.]

Sir:—The communications of Dr. Henry M. Lyman, on the *accidents* which may follow vaccination, published in recent numbers of the American Medical Times, have served to recall to my memory so vividly an "accident" of a different character, which forced itself upon my attention, and afforded so fine an illustration of the unchangeable nature of the vaccine lymph, that I am tempted to transcribe it for your perusal:—

In 1849 a gentleman and his wife, with a little daughter three years old, had apartments in a hotel on the Canadian side of the river, which they left in consequence of the breaking out of small-pox in the same hall on which this family resided. By request of the parents I vaccinated the little girl, the day after they came to Detroit, with recent and active virus. The formation of the vesicle progressed so naturally, and was attended with so much fever on the day for its culmination, that I supposed we had triumphed over the small-pox. At the request of an intimate friend of this family I inserted some lymph taken from this vesicle into the arm of one of her own family, supposing that the fever attendant upon the vaccine disease was incident to it, and not a symptom of variola, as it proved to be the second day after. When this eruption came out, the friends of both the little patients, as well as myself, became nervously anxious to know what would be the product of a vaccination done with lymph matured amidst the fermentation of a genuine variolous fever, just on the eve of producing its eruption. To our great gratification it proved to be only a benignant case of vaccine disease, running its legitimate course, and producing a virus which acted with ordinary mildness upon other persons.

Quite recently a similar conjunction of circumstances has enabled me to repeat as an experiment what the "accident" formerly gave me the means of taking note of. On a day that could be specified an inmate of St. Mary's Hospital was exposed to the contagion of small-pox. When this came to my knowledge, two days afterwards, he was vaccinated. The vaccine vesicle filled on the tenth day. On the twelfth, when the small-pox eruption was pretty fully out on the face, the vaccine vesicle was punctured, and the lymph which flowed transferred to the arm of a healthy adult. The effects produced by this lymph were such as we ordinarily see when the matter used is taken from an adult of a good constitution and in vigorous health. Others were vaccinated with the matter thus produced, in which cases there were no peculiar symptoms.

Not only such isolated facts, but the observations of forty years' familiarity with this subject, in epidemic seasons and in seasons of uncommon salubrity, in hospitals and in the private walks of professional life, have forced me to the conclusion that the *vaccine lymph* is *never* the medium by which other constitutional affections are transplanted from one person to another. There are seasons and states of the system not always dependent upon an epidemic constitution, when the crust, *after* the constitutional symptoms which developed the vesicle have subsided, may become vitiated by an imperfect pustulation, to which it is liable when the system of the subject is charged with the poisons characteristic of eczema, of typhoid fever, of erysipelas, of rubeola, or of syphilis. The putrefactive processes thus set up around the crust destroy the specific qualities of the vaccine virus, give origin to the unseemly scars that sometimes follow vaccination, and the matter thus developed or transformed may produce constitutional effects not germane to the vaccine disease, and such as the

lymph would not have occasioned if used before the disease engendering it had passed its point of culmination.

As before stated I have used, without the production of any untoward result, vaccine lymph taken from a vesicle surrounded by the small-pox eruption. I have tried it when the measles had come out fully, before the desiccation of the vesicle commenced, with a like happy effect; and in one single instance I have used a vaccine crust, that was dried under the pungent heat of scarlatina, without any effect whatever, as if its vitality had been destroyed by the intensity of the poison of scarlet fever.

If care is taken to reject those crusts around which there has been no pustulation, and which have not been increased in thickness by secondary exudations, absolute immunity from blame for pathological hybridism may be claimed by the crust as by the lymph of vaccinia.

Yours, etc.,

Z. P.

DETROIT, March 17, 1862.

Army Medical Intelligence.

REPORT ON VACCINATION OF THE EIGHTH PENN. CAV.

	Total.	Prior to entering the Regiment.									Vaccinated *after* entering the Regt.
		Vaccinated but once.	Re-vaccinated.	Inoculated.	Vaccinated unsuccessfully.	Not vaccinated.	Not vaccinated, but had variolous disease.	Re-vaccinated, and had variolous disease.	Inoculated, and had variolous disease.	Vaccinated, and had variolous disease.	
Field and Staff	14	9	5	0	0	0	0	2	0	0	0
Company A.	78	52	15	1	4	6	0	3	0	8	10
" B.	95	61	20	0	2	9	3	0	0	0	11
" C.	81	64	11	0	0	2	4	1	0	11	2
" D.	86	61	17	0	0	2	6	1	0	7	2
" E.	71	55	8	0	0	7	1	1	0	10	7
" F.	90	77	12	0	0	0	1	1	0	3	0
" G.	95	74	12	0	0	9	0	0	0	4	9
" H.	95	77	15	0	0	1	2	1	0	6	1
" I.	87	70	13	0	0	3	1	1	1	14	3
" K.	95	75	17	0	0	3	0	0	0	6	8
" L.	72	46	18	2	0	1	5	0	0	8	1
" M.	85	63	11	0	1	7	3	0	0	5	8
Total	1044	784	174	3	7	50	26	11	1	77	57

SAM. B. WYLIE MITCHELL, SURGEON.

CAMP LESLEY, VA. (West of Fort Corcoran), Dec. 31, 1861.

DEATH OF DR. MINIS.

HEAD-QUARTERS, DEPARTMENT OF NORTH CAROLINA, ROANOKE ISLAND, February 14, 1862.

GENERAL:—Since handing in my report I am deeply distressed to hear of the death of Surgeon Minis, of the 48th Reg., Penn. Vols. Dr. Minis was detailed to serve with the 9th Reg. N. J. Vols., to fill the position rendered vacant by the death of Surgeon F. J. Weller, who was drowned at Hatteras Inlet.

Words cannot express to you my distress at the loss of Dr. Minis. During the action of Feb. 8th he had charge of the Hospital at Ashby's house. He worked there unceasingly day and night until yesterday. I never gave him an order, for the reason that he always promptly performed any duty asked; even our short acquaintance had inspired me with the greatest respect and admiration for his character, and in his death you and the army have every reason to deplore his loss.

I saw him yesterday, and he agreed with me in the conviction that his illness would be but slight, and I then left him, my mind impressed with the fear that I had overtaxed a too willing professional brother. If there is any mark of respect that can be bestowed upon a deserving officer, I most urgently request that it may be extended to my deceased friend, as every regiment owes him a debt of gratitude.

I am, General, very respectfully,
Your obt. servt.,
WM. HENRY CHURCH,
Brigade Surgeon and Medical Director.

GENERAL ORDERS.—No. 10.

HEAD-QUARTERS, DEPARTMENT OF NORTH CAROLINA ROANOKE ISLAND, February 14, 1862.

2. The General Commanding desires to render a tribute to the memory of Dr. Minis, of the 48th Penn. Vols. He was detached from his own regiment and appointed to accompany the 9th New Jersey, then going into the field. He lost his life by disease, brought on by his untiring devotion to the wounded during and after the action of the 8th.

To the forgetfulness of self which kept him at his post at the Hospital, regardless of rest or sleep, the Department owes a debt of gratitude.

By Command of Brigadier General A. E. BURNSIDE.
(*Signed*) LEWIS RICHMOND,
Assistant Adjutant General.

Medical News.

A new oath has been promulgated for the benefit of the Austrian army doctors. The *Wiener Medicin Wochenschrift* says that it is a great improvement on the old one, which occupied four closely written pages. The following is a clause in this new oath:—"You swear to devote yourself manfully to the good and the service of the sick and the wounded, whoever they may be, and wherever the will of his Imperial Majesty may order, by land and by water, by day and by night, in battle and in storms, in fightings and strugglings of every kind, in every place, at all times, and on all occasions, with eagerness and self-sacrifice, and to shun no danger." Notwithstanding his oath, the Austrian army surgeon is held as a "non-combatant;" and this is one of his grievances.—*Brit. Med. Journ.*

SEVENTH ANNUAL REPORT OF THE BOARD OF TRUSTEES AND OFFICERS OF THE SOUTHERN OHIO LUNATIC ASYLUM, FOR THE YEAR 1861.—From the only table given, we learn that the number of patients in the Asylum, Nov. 1st, 1860, was 157; admitted during the year ending October 31st, 1861, 99; remaining November 1st, 1861, 159. Discharged as recovered, 59; improved, 8; unimproved, 21; died, 8; not insane, 1.—*Cin. Med. and Surg. News.*

SICKNESS AMONGST EMINENT MEDICAL MEN.—Three of the leading medical men of Vienna are at present on the bed of sickness. Professor Dummreicher is suffering from pericarditis; M. Sigmund is just recovering from pneumonia; and Professor Rokitansky has been obliged to take to his bed owing to the serious turn which a chronic affection, from which he has been for some time suffering, has lately taken.—*Lancet.*

DEATH OF M. BRETONNEAU.—This distinguished physician has just died at an advanced age, at Passy, near Paris, where he occupied a noble villa. M. Bretonneau's name is connected with some of the most valuable discoveries in medicine, and had risen to great eminence by his teachings and original turn of mind. The two leading men of the medicine and surgery of Paris respectively, M. Trousseau and M. Velpeau, were his pupils.—*Lancet.*

A HOSPITAL FOR STUDENTS.—An establishment of this kind has lately been founded at Vienna; and a ball in aid of its funds will shortly be given under very distinguished patronage.